

REMARKS

In response to the final Official Action of October 20, 2004, the specification has been amended to return to the original language set forth in the specification as filed, thereby removing the recitation to the word “impeller”. The Examiner states at page 2, paragraph 3 that the term “impeller” is indefinite since the original specification referred to this element as a running wheel. As noted in applicant’s amendment mailed on June 30, 2004 at page 6 thereof, it was applicant’s belief that the word “impeller” was a more appropriate translation of the original Finnish word “juoksupyörä”. As a result, no new matter was believed to be introduced by the amendments at pages 2 and 5 of the Official Action as noted in the prior amendment. Nevertheless, in order to expedite prosecution of the present application, applicant is respectfully amending the specification to return to the original language which only uses the term “running wheel”. Appropriate amendments to the claims has also been made. As a result, the rejection of claims 1-7 and 16-20 under 35 U.S.C. §112, first paragraph is believed to be overcome.

Furthermore, at page 2, paragraph 3, the Examiner objected to the term “the conical surfaces” as being indefinite in claim 1, line 3. An appropriate amendment has been made.

Referring now to page 3 of the Official Action, it is respectfully submitted that claims 1-3, 16 and 20, as amended, are not obvious in view of EP 931584 in view with or without US patent 5,733,412, Markham et al or US patent 4,865,690, Bernard et al. The Examiner states that EP 931584 teaches a method of dispersing pulp containing solid material and a liquid phase in a dispersing device as shown in Figure 1 thereof wherein the dispersing takes place in a narrow opening between rotating conical surfaces (3, 3’, 3’’) and (4, 4’, 4’’) on a rotor (2) and a stator (1). The Examiner further notes that the outlet end of EP 931584 shows an impeller (2, 7 and 7’) acting as a pump to pump the dispersed material out of the dispersing device. The Examiner further notes that although EP 931584 does not teach dispersing pulp, especially waste paper, that Markham et al or Bernard et al teach using a disperser grinder/refiner to disperse waste paper and to remove contaminants from the waste paper.

Claim 1 as presently amended and claim 1 as previously amended both refer to a method that grinds pulp mass which is fed between conical surfaces (3) of a dispersing device. Figure 1

of the present invention makes this abundantly clear in that conical surfaces (3) are shown, one of which is rotatable and the other of which is fixed. This is clearly discussed in the specification as filed at page 3, lines 26-31 wherein it is stated that the dispersing device according to the invention comprises mutually opposed conical surfaces equipped with blades which are brought in a rotating movement in relation to one another (emphasis added). This rotating motion of the conical surfaces is evident in Figure 1 which is a view which shows the device of the invention in cross-section. It is apparent to one of ordinary skill in the art that the cross-sectional view of the device shown in Figure 1 is conical in shape. To assist the Examiner with regard to the shape of the dispersing device and the associated conical surfaces, reference is made to Attachment A which is a copy of Figure 1 of the present invention in which a rotational axis is shown about which the dispersing device is formed. The dispersing device as disclosed in the application and as shown in Figures 1, 2 and 3 is clearly conical in that it is defined by a surface of rotation. A surface of rotation includes a cone as clearly set forth in attachment B which is an excerpt from Wolfram Research at <http://mathworld.wolfram.com/SurfaceofRevolution.html>. In view of the fact that Figure 1 represents a cross-section of the dispersing device which in turn is conical in shape including the conical surfaces (3) with protruding blades (4), it is clear that this shape of the conical surfaces with protruding blades is completely unlike the planar stator (6) and rotor (5) with associated teeth (3, 3', 3'', 4, 4' and 4'') as shown in Figure 1 of EP 931584. The shape of the blades (4) in the present invention is not the claimed distinction over EP 931584. Rather, it is the shape of conical surfaces (3) as opposed to planar rotor (5) and planar stator (6) of EP 931584 that is the key distinction of the present invention over EP 931584. In fact, Figure 1 in EP 931584 is defined in column 2, lines 54-56 thereof as follows:

“FIG. 1 – Section through the significant part of an apparatus according to the invention, from the side;” (English translation)

It is therefore readily apparent that although the teeth 3, 3', 3'' and 4, 4' and 4'' may be conical or pyramidal in shape has nothing to do with disclosing or suggesting that the surfaces

upon which they protrude are conical. In fact, the surfaces upon which the EP 931584 teeth 3, 3', 3'' and 4, 4' and 4'' protrude are clearly planar in shape.

The specification of the present invention makes clear that the conical surfaces (3) upon which the protruding blades (4) are attached gives rise to advantages over dispersing devices which have a planar surface. Thus, at page 4, lines 2-6, it is stated:

“The advantage of a conical dispersing device in regard to a planar dispersing device lies in that the number of blades may be raised 50-150% in relation to a planar dispersing device, whereby the probability of the blade meeting impurity increases considerably in the efficiency of the dispersing device is improved.”

Clearly then, the fact that the present invention discloses and claims that the surfaces (3) are conical in shape teaches away from the disclosure in EP 931584. Markham et al and/or Bernard et al do not make up for this deficiency. In order to make clear this distinction between the present invention and that of EP 931584, claim 1 has been amended in a manner to particularly point out that the surfaces are conical and have protruding blades. No new issue or examination is required with regard to amended claim 1 since claim 1 previously referred to conical blade surfaces regarding reference (3) and the blades (4) protrude from those surfaces. Since amended claim 1 is believed to be distinguished over EP 931584 taken in combination with Markham et al or Bernard et al, it is respectfully submitted that the claims depending thereto are further distinguished over EP 931584 in combination with Markham et al or Bernard et al.

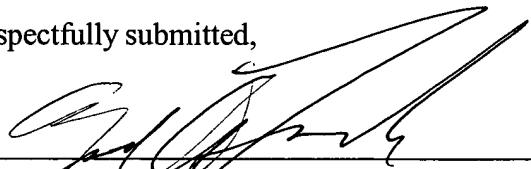
In this regard, the rejection of claims 4-7 and 17-19 under 35 U.S.C. §103(a) in view of EP 931584 in view with or without Markham et al or Bernard et al further in view of US patent 6,419,786, Kurtz is, for the same reasons as presented above, believed to be overcome in view of amended claim 1, from which these claims ultimately depend.

Applicant notes that at page 4, second full paragraph of the final Official Action, the Examiner states that applicant's attorney's previous arguments concerning EP 931584 and blade surfaces was not relevant since that the claimed blades do not define over the blades of EP 931584. For the reasons set forth above concerning the conical surfaces and the protruding

blades, it is respectfully submitted that the Examiner's statement at page 4, second full paragraph, are inapposite in view of the claimed invention as set forth in amended claim 1.

In view of the foregoing, it is respectfully submitted that the present application as amended is in condition for allowance and such action is earnestly solicited.

Respectfully submitted,



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